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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 08/575,433
Filing Date: December 20, 1995
Appellant(s): HUANG, LISHENG

John E. Harrity
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09/22/2006 appealing from the Office action mailed 4/27/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6243373	Turock	06-2001
4763350	Immendorfer et al.	8-1988
4935956	Hellwarth et al.	6-1990

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

2. Claims 1,4-6, 9-11, 14-17,19,20,22,26-33, and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Turock (U.S Patent No. 6243373 B1).

- With respect to claims 1, & 11, Turock teaches a telecommunications system comprising:

an originating circuit-switched network for providing originating signals in response to voice input (blocks 208 & 210 in Fig. 2),

an originating gateway computer for converting said originating signals into digital data packets (block 206 in Fig. 2),

a terminating gateway computer that accepts out of band signaling and converts said digital data packets into terminating signals (block 216 in Fig. 2 and col. 9, lines 8-25),

a terminating circuit-switched network for providing voice output in response to said terminating signals (blocks 220 and 222 in Fig. 2), and

a packet-switched network for transmitting said digital data packets from said originating gateway computer to said terminating gateway computer (block 214 in Fig. 2), at least one of said originating gateway computer or said terminating gateway computer comprising a component for routing said digital data packets through said packet-switched network from said originating gateway computer to said terminating gateway computer (block 512 in Fig. 2);

wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input (e.g. col. 5, lines 1-3),

wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse),

wherein at least one of said originating gateway computer or said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer (512 in Fig. 2),

and wherein said originating gateway computer comprises a component for converting said return packets into second return signals (ICM 508 in Fig. 2).

- With respect to claims 4, & 14, Turock also teaches wherein said terminating gateway computer comprises a terminating buffer component for storing said digital packets prior to the conversion thereof into said terminating signals (col. 8, lines 20-24).

- With respect to claims 5, & 15, Turock discloses wherein said terminating gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order (914 in Fig. 10).

- With respect to claims 6, & 16, Turock further teaches wherein said routing component provides said routing in response to dialed digits (col. 6, lines 35-37).

- With respect to claims 9, & 19, Turock teaches wherein said originating gateway computer comprises an originating buffer component for storing said return packets prior to conversion thereof into said second return signals (col. 8, lines 23-26).

- With respect to claims 10, & 20, Turock discloses wherein said originating gateway computer further comprises a component for rearranging said stored return packets to maintain a proper packet order (914 in Fig. 10).

- With respect to claim 17, Turock teaches wherein said routing component provides said routing in response to a typed input from a computer keyboard (252 in Fig. 4).

- With respect to claim 22, Turock teaches a telecommunications method comprising:

providing originating digital packets for transmission from an originating gateway computer (206 in Fig. 2), said originating digital packets corresponding to originating signals produced in response to originating voice input (202,208,210 in Fig. 2);

routing said originating digital packets from said originating gateway computer to a gateway computer, that accepts out of band signaling, through a packet-switched network via an originating routing component in at least one of said originating gateway computer or said gateway computer (block 216 in Fig. 2 and col. 9, lines 8-25);

converting said originating digital packets into terminating signals for transmission from said gateway computer (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse);

transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals (204,222,220 in Fig. 2);

providing first return signals to said gateway computer in response to return voice input into said circuit-switched network (e.g. full duplex communication between 204 and 202 in Fig. 2);

converting said return signals into return digital packets of return digital data for transmission from said gateway computer (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse);

routing said return digital packets through said packet-switched network from said gateway computer to said originating gateway computer using said originating routing component or another routing component in said originating gateway computer or said gateway computer (from 216 to 214 to 206 in Fig. 2);

and converting said return digital packets into second return signals (at the 508 in Fig. 5).

- With respect to claims 26, & 32, Turock further teaches wherein at least one of said routing components comprises an address resolution logic and a network routing database implemented with a central processing unit (col. 12, lines 66-67).

- With respect to claims 27, & 33, Turock discloses wherein said originating gateway computer includes a component for providing a ring back tone or a busy tone to a telephone connected to said originating circuit-switched network (col. 8, lines 9-11, 25-26).

- With respect to claim 28, Turock also teaches wherein said originating gateway computer includes a component for providing out of band signaling between said originating gateway computer and said originating circuit-switched network (col. 9, lines 8-25).

- With respect to claim 29,Turock teaches a telecommunications system comprising:

an originating circuit-switched network for providing originating signals in response to voice input (blocks 208 & 210 in Fig. 2),

an originating gateway computer for converting said originating signals into digital data packets (block 206 in Fig. 2),

a terminating gateway computer that accepts out of band signaling and converts said digital data packets into terminating signals (block 216 in Fig. 2 and col. 9, lines 8-25 see explanation below),

a terminating circuit-switched network for providing voice output in response to said terminating signals (blocks 220 and 222 in Fig. 2), and

a packet-switched network for transmitting said digital data packets from said originating gateway computer to said terminating gateway computer (block 214 in Fig. 2), at least one of said originating gateway computer or said terminating gateway computer comprising a component for routing said digital data packets through said packet-switched network from said originating gateway computer to said terminating gateway computer (block 512 in Fig. 2);

wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input (e.g. col. 5, lines 1-3),

wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse),

wherein at least one of said originating gateway computer or said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer (512 in Fig. 2),

wherein said originating gateway computer comprises a component for converting said return packets into second return signals (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse), and

wherein at least one of said originating gateway computer or said terminating gateway computer comprises a time-division multiplexing bus interconnecting at least one digital trunk interface with a digital signal processor and an application-specific integrated circuit, and a system bus interconnecting said digital signal processor and said application-specific integrated circuit with a central processing unit and a random access memory (e.g. busses in Fig. 5 between 205,506,508,504,512).

- With respect to claim 30, Turock teaches wherein said system bus is interconnected with said originating circuit-switched network via a component for out of band signaling (col. 6, lines 44-50.

- With respect to claim 31, Turock discloses wherein said originating circuit-switched network comprises at least one dedicated address for a caller (e.g. the telephone number of caller), and a routing configuration from said dedicated address to said originating gateway computer (col. 6, lines 36-43), said routing configuration being such that a caller's address and a destination address are passed to said originating gateway computer by the originating circuit-switched network and are routed to said terminating gateway computer by an originating routing component (col. 6, lines 43-51 and col. 9, lines 8-25).

- With respect to claims 35 & 37, Turock teaches wherein said gateway computer is a terminating gateway computer (216 in Fig. 2), and wherein said method further comprises:

providing a caller's address and a callee's address to said originating gateway computer (col. 6, lines 50-55; col. 12, lines 66-67), authorizing a call between the caller and the callee using the caller's address (col. 9, lines 66-67), using the callee's address for said routing of the originating digital packets from the originating gateway computer to the terminating gateway computer (e.g. bridge paragraph between cols. 8 & 9), causing the terminating gateway computer to dial out to the callee through said circuit switched network using the callee's address (col. 7, lines 10-12), and causing the originating gateway computer to provide a return tone for advising the caller of a status of the call (col. 8, lines 25-26).

- With respect to claim 36, Turock discloses comprising the further step of causing the terminating gateway computer to transmit to the originating gateway computer via said packet-switched network a state change caused by the callee's answering said call (col. 7, lines 1-17).

- With respect to claim 38, Turock teaches a method for establishing a call connection, the method comprising:

receiving, at a first gateway device, a destination address of a called device from a calling device over a first circuit-switched network (col. 6, lines 44-46);

transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, at least one of the first gateway device or the second gateway device accepting out of band signaling (col. 6, lines 48-51, bridge paragraph between cols. 6-7);

connecting, via the second gateway device, to the called device through a second circuit-switched network using the destination address (col. 7, lines 10-12); and establishing a call connection between the calling device and the called device through the first circuit-switched

network, the packet-switched network, and the second circuit-switched network in response to the connecting (col. 7, lines 13-17).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Turock (U.S Patent No. 6243373 B1) in view of Immendorfer et al. (U.S. Patent No. 4763350).

- With respect to claim 7, Turock discloses all the aspect of the claimed invention as set forth above but fails to teach wherein said routing component provides said routing in response to spoken digits. Immendorfer teaches dial out information in form of spoken words and/or spoken digits (col. 3, lines 40-45) in the telephone communication. The service feature of dial out in form of speed can implement at block 202 of Turock for user's convenient. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the speed recognition into Turock invention for user's convenient.

5. Claim 34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turock (U.S Patent No. 6243373 B1) in view of Hellwarth et al. (U.S. Patent No. 4935956).

- With respect to claims 34 & 39, Turock teaches a telecommunications method comprising:

providing originating digital packets for transmission from an originating gateway computer (206 in Fig. 2), said originating digital packets corresponding to originating signals produced in response to originating voice input (202,208,210 in Fig. 2);

routing said originating digital packets from said originating gateway computer to a gateway computer, that accepts out of band signaling, through a packet-switched network via an

originating routing component in at least one of said originating gateway computer said gateway computer (block 216 in Fig. 2 and col. 9, lines 8-25);

converting said originating digital packets into terminating signals for transmission from said gateway computer (in the Remote ITS node 266 has a same ICM for converting signals to digital and reverse);

transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals (204,222,220 in Fig. 2);

providing first return signals to said gateway computer in response to return voice input into said circuit-switched network (e.g. full duplex communication between 204 and 202 in Fig. 2);

converting said return signals into return digital packets of return digital data for transmission from said gateway computer (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse);

routing said return digital packets through said packet-switched network from said gateway computer to said originating gateway computer using said originating routing component or another routing component in said originating gateway computer or said gateway computer (from 216 to 214 to 206 in Fig. 2);

converting said return digital packets into second return signals (at the 508 in Fig. 5);

estimating a unit charge for a call going through said gateway computer; informing a caller providing said originating voice input about the unit charge (col. 9, lines 27-50). Turock fails to teach recording a payment method specified by the caller before providing said terminating voice output.

Hellwarth teaches a payment method specified by the caller (col. 3, lines 40-55) for allowing the customer to select a method of payment before communicating. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the selecting payment method of user before making a call for customer's convenient.

(10) Response to Argument

1. In response to Appellant's argument with respect to claims 1, 11, 22, 28-29, 34, and 38, that Turock does not disclose or suggest a terminating gateway computer that accepts out of band signalling and converts the digital data packets from the originating gateway computer into terminating signals (pages 11-12 of appeal brief). Examiner respectfully disagrees.

Out-of-band signalling is telecommunication signalling that is done on a channel different from that for carrying voice or data. In computer network, out-of-band is a separate stream of data from the main data stream.

In a packet network, data is sent in a packet through the packet network to some remote location. The packet has a unique identification and carries its own destination or source address and destination address. A channel is defined as a pair of addresses, i.e. the source and the destination addresses.

In this case, when a signalling between a Specialized Switch (block 206 in Fig. 2 of Turock) and Specialized Switch (block 216 in Fig. 2 of Turock), a channel is established only between these nodes. Thus, the channel for signalling is the virtual channel to containing the addresses of the source node, which is node 206, and the destination node, which is node 216. Once the signalling stage is completed and voice path is established between caller (block 202 in Fig. 2 of Turock) and callee (block 204 in Fig. 2 of Turock). The full duplex channel now is the

virtual channel containing the source and destination addresses of caller 202, and the callee 204. This channel is totally different from the channel established between nodes 206 and 216 which does not involve any nodes preceding node 206 nor any node succeeding node. Since, the two channels (connections) are different, the signalling done in Turock is indeed out of band signalling.

Claims depend from claim 1, 11, 22, 29, 34 and 38 are still rejected as dependent claims and reason above.

2. In response to Appellant's argument with respect to claims 5, 10, 15, and 20, that Turock does not disclose or suggest a component for rearranging the stored digital packet to maintain a proper packet order. Examiner respectfully disagrees. Turock teaches the validation of the sequence number to insure that the messages have arrived in proper order, which is considering as rearrange the packets to maintain the proper order. They are ways to insure the packets arriving in a proper order in voice communication.

3. In response to Appellant's argument with respect to claim 17 that Turock does not disclose or suggest that multimedia personal computer corresponds to an originating gateway computer for providing digital packets corresponding to originating signals produced in response to voice input or a gateway computer that accepts out of band signalling. Examiner respectfully disagrees. The limitation of claim 17 corresponding to Fig. 4 of Appellant and does not teach or suggest that multimedia personal computer corresponds to an originating gateway computer for providing digital packets corresponding to originating signals produced in response to voice input or a gateway computer that accepts out of band signalling. Turock teaches every limitation of claim 17 (Fig. 4 or Turock), which is the same as Fig. 4 of Appellant. See figures below.

4. In response to Appellant's argument with respect to claims 26 and 32 that Turock does not disclose or suggest a routing component that comprises an address resolution logic and a network routing database implemented with a central processing unit. Examiner respectfully disagrees. Turock teaches the address resolution logic and the network routing database implemented with a central processing unit (see col. 12, lines 62-67 of Turock).

5. In response to Appellant's argument with respect to claim 36 that Turock does not disclose or suggest causing the terminating gateway computer to transmit to the originating gateway computer, via the packet-switched network, a state change cause by the callee's answering the call. Examiner respectfully disagrees. Turock teaches a communication link is established when the called's answering the call, therefore the state change the cause the communication links between gateways.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Phuc Tran

Conferees:

Chi Pham

Chau Nguyen